

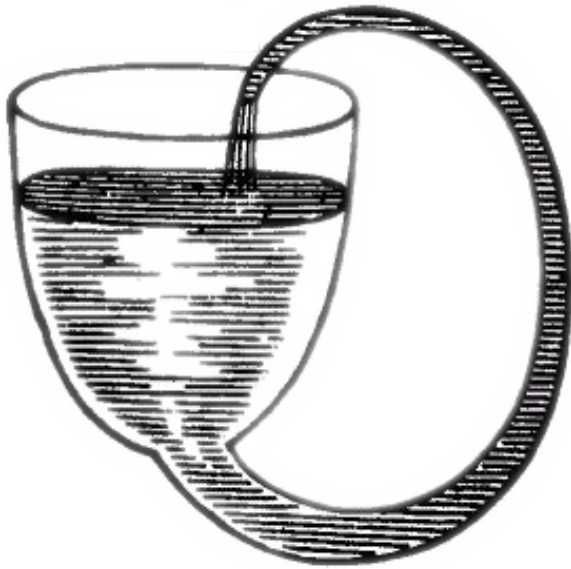


NEW PHONOGRAPH

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FILIP ŠÍR



Premises



The **cultural heritage of sound recordings** in the Czech Republic reaches back more than **120 years**. We can ensure their **preservation** through **digitization**, but without first **cataloguing** all the items it is not possible to make the most appropriate **selection**. These steps must be professionally conceived and **coordinated at every level**, including at the national level. Without the provision of **financial** and **personnel support**, this cannot be realized, and there is the risk of the **irrevocable loss** of the contents of these recordings. We would therefore also lose the possibility of **sharing** our cultural heritage **internationally**.

120 years of sound recording in the Czech Republic

1891 First known sound recordings on wax cylinder in Czech territory



1901 First known recordings on gramophone disc in Czech language



1923 Czech Radio (originally called Radiojournal) first broadcast



1930 First Czech recording companies (ESTA and Ultraphon) are established



1928-1934 Czech Academy of Sciences launch a project recording contemporary performers, politicians and music



1932-1935 Heavy taxation on imported recordings forces companies to form Czech branches



1946 Nationalisation of Czech recording industry
Supraphon = the unifying label



120 years of sound recording in the Czech Republic

1951 Vinyl (SP) records introduced in Czechoslovakia

1961 Stereo LP records introduced in Czechoslovakia

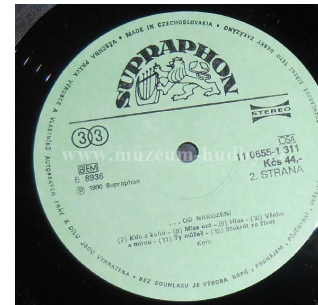
1963 Last shellac records are manufactured in Czech Republic

1991 New legal deposit law defined

2012 Virtual National Phonotheek (VNP) started the "new age"

2018 VNP is settled in National Library of Technology

2018 New Phonograph: Listening to the History of Sound



OLD
PHONOGRAPH



NEW
MODERN GRAMOPHONE



1,3 mil USD | **5** years | **4** institutions | **30+** people | **1** dream



NATIONAL MUSEUM



Národní knihovna České republiky National Library of the Czech Republic



KNIHOVNA AKADEMIE VĚD ČR



NAKI II 2018-2022
PROJEKT č. 32
MKČR
(SUOBODOVA)

KANCELÁŘ NAKI

Ekononická

ORGANIZACE

? PRACOVNÍ TÝM NM
4 PILÍŘE

EVIDENCE, OCHRANA
DIGITALIZACE, PŘÍSTUPNOST

FILIP = NM

ŘEŠITELSKÝ TÝM NM (UH, OZ, MK, PF)

NKČR

2018-2020

STANDARDS
FOND

KNAV

18-22

VÝVOJ
PROAR + KRATERIUS
(R) (R)

MUKISK

18-22

EDUKACE
5 PILÍŘŮ

ŘEŠITELSKÉ TÝMY
NKČR + KNAV + MU
Z.P. ZK. P.L. MK HN

JREC
B

UCHOVÁVÁNÍ KULTURNÍHO (UV)
PĚDICTVÍ
DIGITÁLNÍ KURÁTORSTVÍ (UV)

DOKLAD
KOMUNIKACE

ADVISORY TEAM
MIMO NAKI
ZAHRAŇIČI



MINISTERSTVO
KULTURY



NÁRODNÍ
MUZEUM



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AKADEMIE VĚD ČR



Education

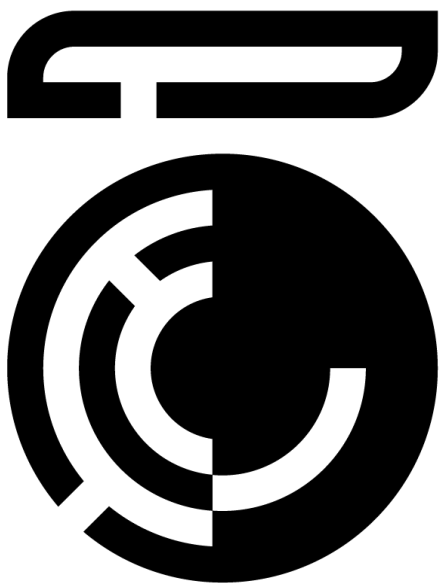


Conservation

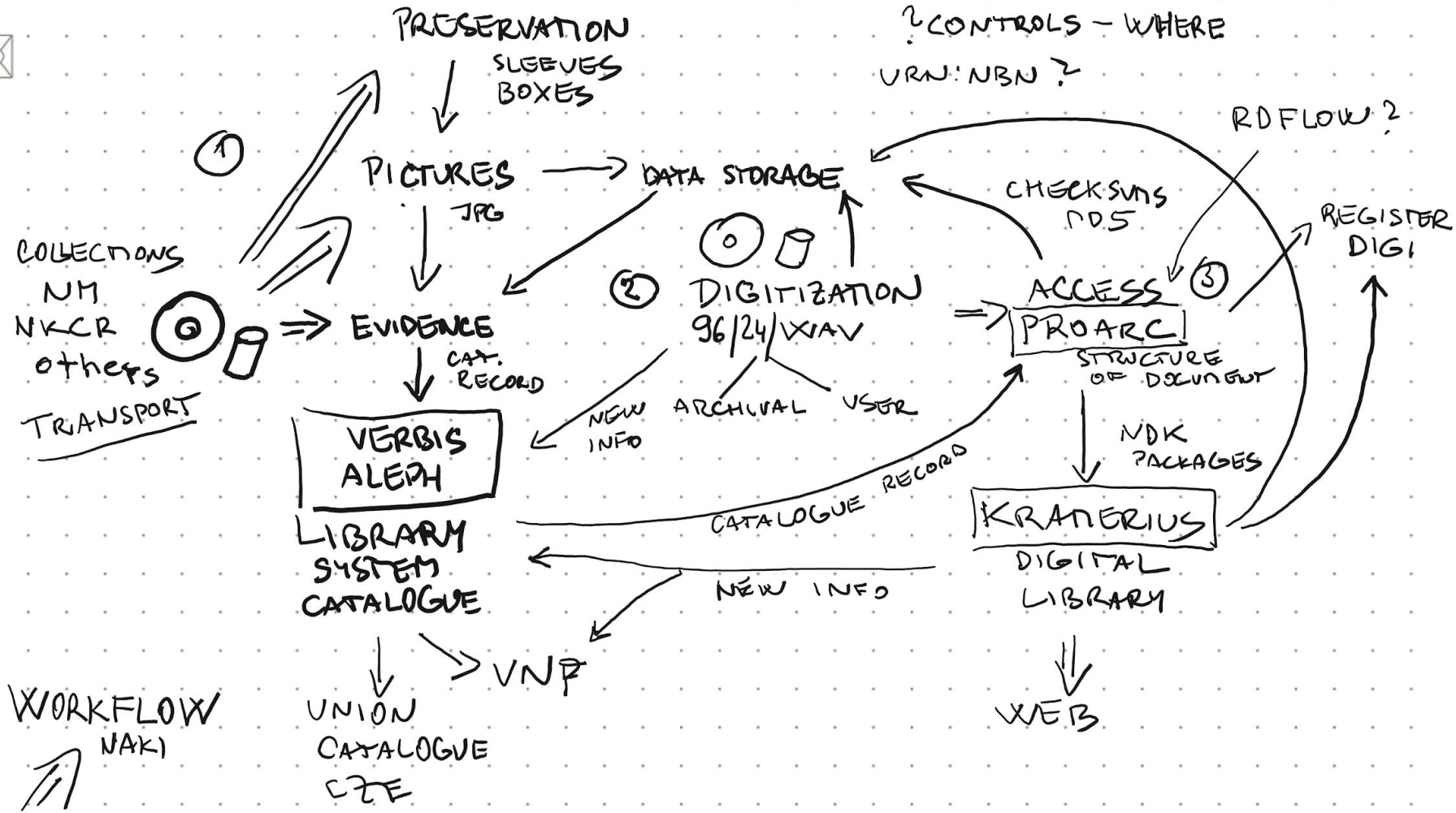
Evidence

Digitisation

Access



Workflow ver. 0.1



Carriers in the Czech Republic

There are about 1,200 phonograph cylinders and more than 26,000 gramophone records (with a diameter of 25 cm) in the collections of the Czech Museum of Music

More phonograph cylinders are held in the collections of the National Technical Museum or The Czech Academy of Sciences.

Rough estimate ~5,000 cylinders in the Czech Republic.



Conservation

Identification- Collection itemisation and condition check

Cleaning - Keith Monks, ultrasonic bath, custom-made record holder

Protection - ARSC cylinder container, custom box for container storage

Labelling - Barcode system: record, original container, new sleeves, storage



Cataloguing

Photography- Bespoke imaging studio, research into best practice for capturing images of labels; increases throughput and minimises risk of damage to carrier

→ Cataloguing - Physical metadata derived from digitised images on the basis of RDA standard in MARC21 format

- Defined fields for audio
- Library standard for 50 years
- Pathway to linked open data

New model of discography and library database - development of special metadata package for sound carriers for Czech environment

Digitisation

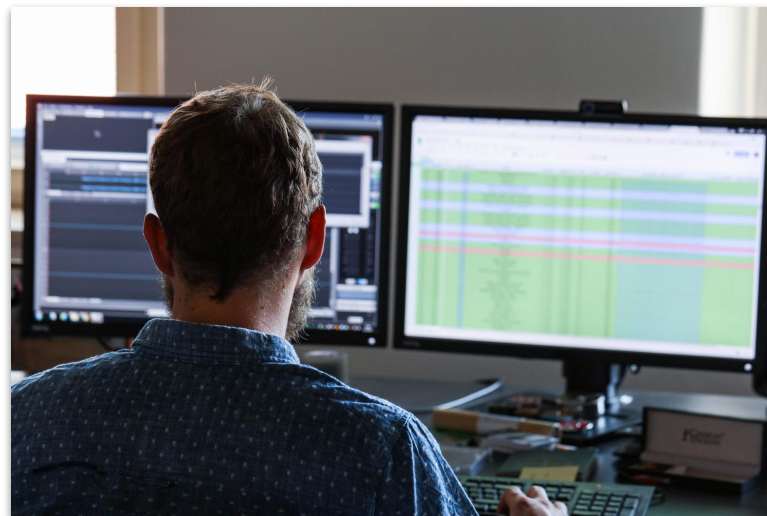
Transfer

Tool	Use
WaveLab 9	Digital Audio Workstation
Technics SP15	78 rpm records / 33 rpm and more
Technics SL-1200	
ELP Laser Turntable	
Archeophone/Endpoint/CPS1/???	Cylinder playback machine

Checksum - MD5 standard


Technical Metadata - BWF embedded

- METS
- PREMIS



Access (1)

Ingest - Digital Library Kramerius

←  Národní muzeum

Search in digital library ...

Collections Browse Česky

Results: 1 - 60 / 288

📖 2 📅 42 📄 0 🗨️ 0 📁 0 📄 0 🎵 244 🎵 0

Ordering: Recently added

Active filters ✕

🔒 Public

Accessibility ▾

Public 288

Private 64

All 352

Keyword ▾

krajané 9

Veřejný a společenský život. 2

Každodenní život 1

Politika 1

Umění 1


gramofonové desky 1

letectví 1

Author ▾

Národní divadlo v Praze 29


Frejka, Jiří 24

 **Básník a sedlák. Ouvertura**

Suppé, Franz von


1935

Sound Recording

 **Jednou za čas**


1915-[1925?]

Newspaper

 **V boj!**

1916-1917


Newspaper

 **Dennice novověku**

Šnajdr, Václav, 1847-

1877-1916


Newspaper

 **Dělnické listy**

Hlaváček, František Josef,


1893-1898

Newspaper

 **Denní Osvěta**

1902


Newspaper

 **Mé zlaté rodiče : píseň Libická = (Meine Goldenen**

Mařák, Otakar

1905


Sound Recording

 **Podle mlejnem ; Čupr polka**

Čížek, Václav

1905

Sound Recording

 **Auch ich war ein Jüngling : aus "Waffenschmied"**

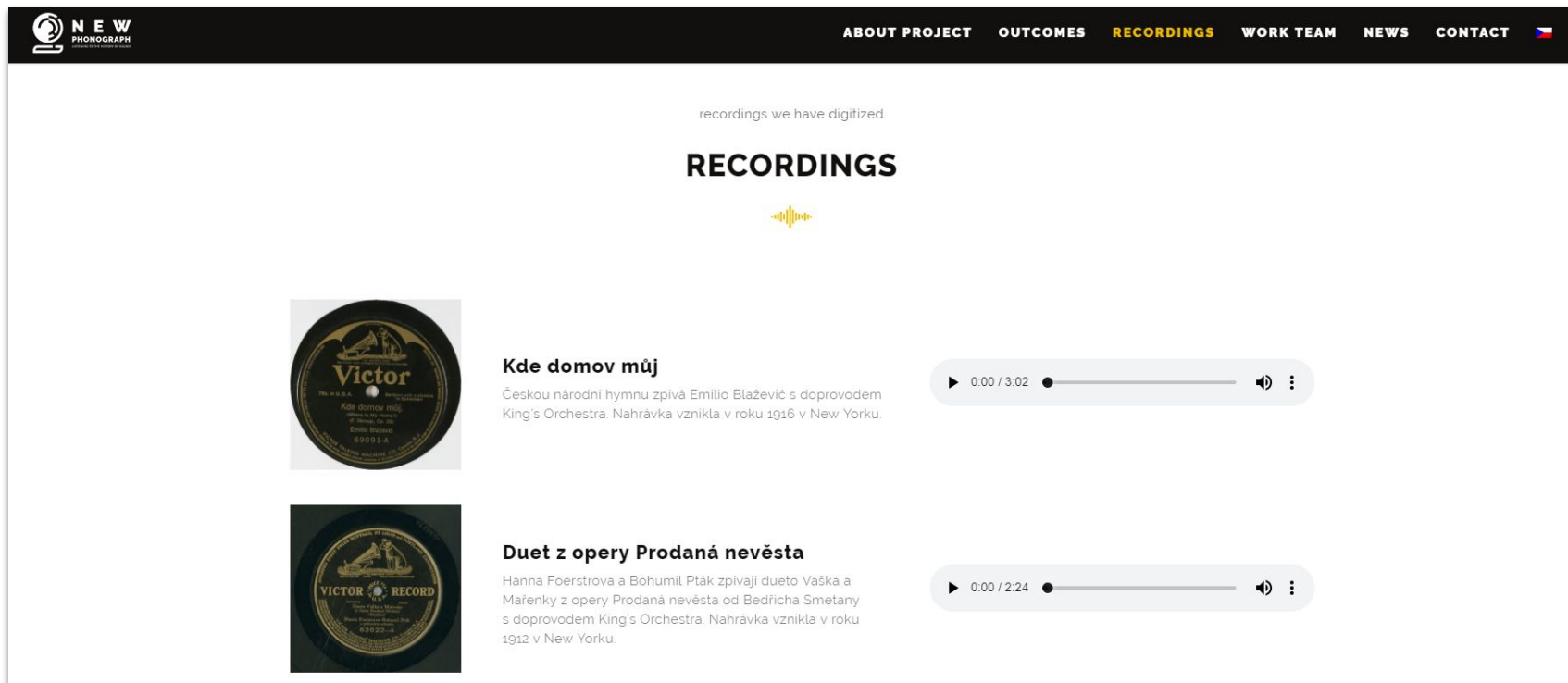
Lortzing, Albert, Gounod,

1905

Sound Recording

Access (2)

Web portal - Making content accessible via NewPhonograph.cz



The screenshot displays the 'RECORDINGS' section of the NewPhonograph.cz website. At the top, a navigation bar includes links for 'ABOUT PROJECT', 'OUTCOMES', 'RECORDINGS' (highlighted), 'WORK TEAM', 'NEWS', and 'CONTACT'. Below the navigation, the text 'recordings we have digitized' is centered above the 'RECORDINGS' title. A yellow audio waveform icon is positioned below the title. Two audio tracks are listed:

- Kde domov můj**
Českou národní hymnu zpívá Emilio Blažević s doprovodem King's Orchestra. Nahrávka vznikla v roce 1916 v New Yorku.
Duration: 0:00 / 3:02
- Duet z opery Prodaná nevěsta**
Hanna Foerstrova a Bohumil Pták zpívají dueto Vaška a Mařenky z opery Prodaná nevěsta od Bedřicha Smetany s doprovodem King's Orchestra. Nahrávka vznikla v roce 1912 v New Yorku.
Duration: 0:00 / 2:24

Each track entry features a circular image of a vintage record label on the left and a playback control interface on the right, including a play button, a progress bar, and volume controls.

Outreach - Radio, TV and Social campaigns, Exhibitions and public-facing workshops

Education (1)

As a research project, each pillar represents a facet of education, which will be disseminated through workshops and lectures, as well as published articles.

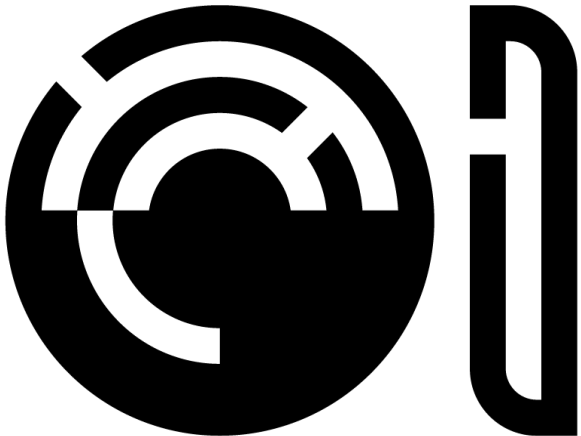


Education (2)

An **education platform** will be created:

- Faculty of Arts of Masaryk University (KISK)
- New curriculum to disseminate knowledge of new procedures
- Digital Curatorship (Masters) | Protection of Cultural Heritage (Masters)
- Focus on library science, museum management, and archival science.





Summary of Outcomes

The project aims to create a unified method of cataloguing media across institutions, make the content accessible and presented within context and to ultimately deliver a complete workflow which can be integrated into other national institutions.

The defined outcomes cover:

- **Methodologies**

- Handling and protection of historical media
- Capturing authentic images of gramophone record labels for permanent storage
- Digitalization of recordings stored on phonograph cylinders

- **Software**

- Modules for ProArc and Kramerius
- National Discographic Database
- Workflow tracking database

- **Publications**

- Peer-reviewed articles
- Workshops
- Presentations

Main project results - methodologies



The principle outcomes include a number of best-practice methodologies which will integrate expertise from around the world into the Czech cultural heritage environment.

- Define procedures for handling endangered historical media **2019**
 - Aggregated, translated information from various sources (TC05, Sound Directions, etc)
 - Do-it-yourself approach for other institutions to follow
- A best-practice methodology for capturing authentic images of gramophone record labels for the purposes of permanent storage **2020**
 - New photo studio, storage, metadata and software requirements
- Methodology of digitisation of recordings stored on phonograph cylinders **2021**
 - Aggregation of best-practice from around the world, for the Czech environment
 - Possible inclusion of newer techniques (non-standard styli, methods of cleaning)

Main project results - software

These tools shall be based on solutions that are **already in use**, but **customised** and made freely available to other cultural heritage institutions.



- Phonocylinder module for ProArc production & archiving system **2020**
 - Development of a software module for creating and editing phonograph cylinder metadata in the ProArc production and archiving system
- Sound player module for Kramerius **2021**
 - Creation of a module for presenting (making accessible) audio documents in the Kramerius digital library
- National Discography Database **2022**
 - Creation of a specialized electronic database focused on Czech and Czechoslovak recordings published commercially in the form of cylinders and standard records

Main project results - books, etc.

- Digitization of audio documents: current situation, issues, possibilities
- Czech National Phonotheque or National Sound Archive Throughout History

Peer-reviewed Articles

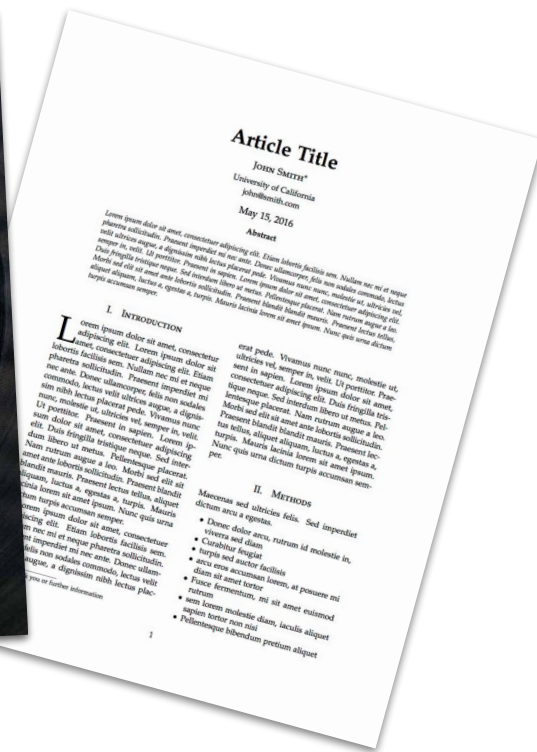
- 8 in total

Timeline: 2020 - 4x | 2021 - 2x | 2022 - 2x

Workshops

- 6 workshops across four years

Timeline: 2019 - 2x | 2020 - 2x | 2021 - 1x | 2022 - 1x



Beyond the Project

- Procedures and standards taken from the **international community** (e.g. IASA TC-05) will be **implemented** at the national level.
- Newly developed **software tools** can be distributed **freely** and linked to widely-used Czech platforms (ProArc, Kramerius).
- The digitisation **devices** purchased within the scope of the project will be available for **other institutions** as well and, ultimately, **beyond** the Czech Republic.
- **Education** of **new specialists** will make the oldest historical audio technologies accessible in an **attractive way** while ensuring their permanent protection at the same time.
- **Possibility** of a central European **audiovisual archive council**



Institutions and Roles



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- **Collection registration; history of collection; uniqueness of sound documents;** criteria for selecting documents for digitization
- Coordinates the area of **image** and **sound digitisation; long-term storage** of digitized documents and the process of making them accessible
- **Analyzing and creating a standard** for the long-term storage of **phonograph cylinders;** coordinates works within this standard in the NL CR
- **Coordinates development of tools** for creating and editing the metadata of sound documents; **defines** the **metadata** structure and audio modules for **ProArc & Kramerius** systems
- **Coordinates** lecturers of **teaching digital curatorship** and **cultural heritage protection;** writing text (historical studies, teaching texts, proposal of a specialized curriculum) and **organizes workshops** and seminars

A plan of research activities: stage 1

- **Registration** and **research** on the **content** of the recordings, with a focus on the **uniqueness** of the content and unique identification
- Analysis and installation of **technology** for the **digitization** of record **labels**
- **Research** into **label photographing**, towards a **certified methodology**
- Analysis of the **needs of museums in registering the content** of recordings
- **Heuristics** of **discographic** data
- Analysis and interpretation of recommendations for **physical protection** of media for **Czech** cultural heritage institutions
- Specialized **training** for new **cataloguers**
- Preparatory analysis for **software** solutions
- Analysis for the **preparation of training seminars** for Masaryk University

A plan of research activities: stage 2

- Purchase of **unique equipment** for the transcription of phonograph cylinders
- Analysis, specification, and creation of the **LTP standard** for cylinders
- Specification and **programming**:
 - new module for cylinders in ProArc system
 - new sound module for Kramerius digital library
- Defining **workflow** and technological processes for selective digitization
- **Methodology** for the **digitisation** of recordings stored on **cylinders**
- **Writing** of texts and study materials
- Organization and **teaching** of courses and workshops

A plan of research activities: stage 3

- Specialized **transcription** of analog sound recordings into digital form
- Both manual and automated **creation of metadata**
- Creation of National Digital Library packages using the new software-module in ProArc and the process of archiving and making them accessible in Kramerius digital library
- Making the **digitised documents available** in the digital library, i.e. uploading files, creating links, creation of metadata and controlling them
- Analysis, evaluation, and development of **discography databases**
- Analysis, creation, and content of the **new web portal** for the NM-CMM
- Writing specialized texts and **releasing publications**
- **Education** in the form of training seminars, workshops, and webinars



LISTENING TO **THE HISTORY OF SOUND**

We digitize historical recordings from phonograph cylinders and records.

EVIDENCE

We itemise phonographic cylinders and gramophone records.

PROTECTION

We physically protect historical audio carriers.

DIGITIZATION

We digitize recordings from historical media, specifically cylinders and discs.

EDUCATION

We teach all facets of the process in the form of seminars and teaching materials.



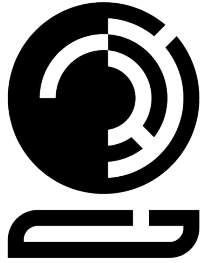
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THANKS FOR LISTENING

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